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TWO NEW ENTOCYTHERID OSTRACODS FROM THE VICINITY OF WASHINGTON, D.C.

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In the course of a recent study of the entocytherid ostracods associated with crayfishes in the collection of the U. S. National Museum in Washington, D.C., a new species of the genus *Ankylocythere* Hart 1962 and a new entocytherid genus were found associated with specimens of the crayfish *Cambarus d. diogenes* Girard from Washington, D.C. and the immediate vicinity. These ostracods are described below, and their relationships to other entocytherid ostracods discussed.

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Okriocythere, new genus

Diagnosis: Terminal tooth of mandible with cusps. No finger guard on copulatory complex. Clasping apparatus heavy, club-shaped, with horizontal ramus reduced and possessing teeth on internal and external borders. Peniferum extending only slightly beyond clasping apparatus; penis large, curved, and situated distally on peniferum.

Name: *Okrios*, Gr.—any roughness + *Cythere*.

Type Species: *Okriocythere cheia*, new species (see below).

Okriocythere cheia, new species

Male: Eyes reduced or absent; when present, situated ⅓ shell length from anterior end. Shell subelliptical in outline with greatest height about midpoint. Setae scarce; situated on anterior and posterior ends. The shell sizes of four specimens (in mm) are:

Length—	0.47	0.47	0.48	0.47
Height—	0.28	0.28	0.28	0.28

Antennae, mandibles, and maxillae essentially identical with those of *Donnaldsoncythere humesi* (Hoff, 1943: 282).

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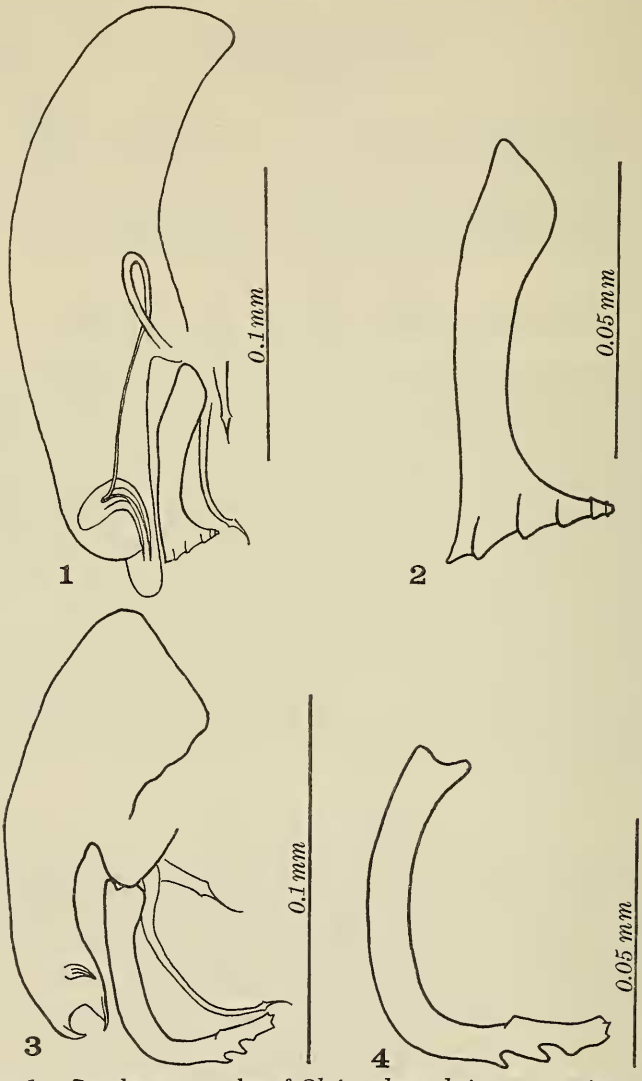

Fig. 1. Copulatory complex of *Okriocythere cheia*, new species.
Fig. 2. Clasping apparatus of paratype of *O. cheia*.
Fig. 3. Copulatory complex of *Ankylocythere tridentata*, new species.
Fig. 4. Clasping apparatus of *A. tridentata*.

Copulatory complex (Fig. 1) with ventral extremity of peniferum extending ventrally slightly beyond clasping apparatus; distal prominence not heavily cornified. Penis situated in ventral portion of peniferum, and extending slightly beyond base of ventral prominence. Clasping ap-

paratus (Figs. 1 and 2) heavy, club-shaped, with an acute caudoventral angle at junction of horizontal and vertical rami; horizontal ramus much reduced, when compared with other entocytherid ostracods (except the genus *Donnaldsoncythere*). External border of horizontal ramus with five teeth, from which conspicuous elevations extend dorsally on mesial and lateral surfaces as ridges, and the distal two apparently encircle the ramus; internal border of horizontal ramus with two teeth.

Female: Shell of one biunguis female identified, similar to male but slightly smaller (length, 0.43; height, 0.25).

Variations: Slight variations were noted among the four male specimens, the most conspicuous being that the external border of the clasping apparatus may have four or five teeth; the internal border one or two teeth.

Type locality, range, and host: Prince Georges Co., Maryland (from U. S. National Museum crayfish collection No. 42604). Other specimens were taken from Laurel, Prince Georges Co., Maryland (USNM crayfish collection No. 43753); Plummers Island, Potomac River, Montgomery Co., Maryland (USNM crayfish collection No. 43761); and Zoological Park, Washington, D.C. (USNM crayfish collection No. 16974). The host crayfish in all instances was *Cambarus d. diogenes* Girard. Associated with this ostracod in collections No. 42604 and 43761 was a new species of the genus *Dactylocythere*, soon to be described by Dr. Horton H. Hobbs, Jr. In collection No. 43761 it was also associated with a single specimen of a new species of genus *Ankylocythere*, described below.

Disposition of the types: The male holotype and dissected male paratype are deposited in the U. S. National Museum in Washington, D.C. (USNM 110940 and 110941). Other specimens are in the collections of Dr. Horton H. Hobbs, Jr., and the author.

Relationships: Based on the structure of the copulatory complex, this species does not appear to be closely allied with the other entocytherid ostracods. If close relationships exist, they are probably with members of the genus *Donnaldsoncythere*, although the shape of the clasping apparatus indicates considerable divergence from any known entocytherid.

Name: *Cheia*, Gr.—hole in the ground. The reference is to the fact that this ostracod is known only from the burrowing crayfish, *Cambarus d. diogenes*.

Ankylocythere tridentata, new species

Male: Shell subelliptical in outline with greatest shell height at about the midpoint. Marginal setae apparently absent. Eye spot reduced or absent. The only known specimen measures 0.36 mm in length, 0.20 in height.

Antennae, mandibles, and maxillae essentially similar to those of *Ankylocythere tiphophila* (Crawford, 1959: 173, pl. 5).

Copulatory complex (Fig. 3) with clasping apparatus extending beyond peniferum. Clasping apparatus (Figs. 3 and 4) with distinct horizontal and vertical rami, subequal in length. Internal border of horizon-

tal ramus provided with one tooth; external border provided with three teeth, the most distal of which is not as well developed as the other two; distal extremity with three denticles. Peniferum relatively simple; distal extremity bifurcate with points apposed to one another. Penis small, situated in distal portion of peniferum.

Female: Not known.

Relationships: Within the genus *Ankylocythere*, this species appears to have its closest affinities with *A. talirotunda* (Rioja, 1949), *A. heterodonta* (Rioja, 1940), and *A. sinuosa* (Rioja, 1942). These species are known only from Mexico. *A. talirotunda* and *A. heterodonta* show evidence of possible relationships with *A. tridentata* based on the number of teeth on the external border of the horizontal ramus of the clasping apparatus; *A. sinuosa* shows evidence of possible relationships in that it possesses a bifurcate peniferum similar to that found in *A. tridentata*.

The bifurcate peniferum, on the other hand, also indicates possible relationships with certain members of the genus *Uncinocythere* and with a new genus soon to be described by Dr. Horton H. Hobbs, Jr.

Type locality and host: Plummers Island, Montgomery Co., Maryland. This ostracod is known from a single specimen found on the crayfish *Cambarus d. diogenes* Girard, collected by W. Hay (USNM crayfish collection No. 43761). The holotypic male of this ostracod is deposited in the U. S. National Museum (USNM 110942).

This ostracod was associated with *Okriocythere cheia* (described above) and with a new species of the genus *Dactylocythere* soon to be described by Dr. Horton H. Hobbs, Jr.

Literature Cited

Crawford, Edward A., Jr. 1959. Five new ostracods of the genus *Entocythere* (Ostracoda, Cytheridae) from South Carolina. Univ. South Carolina Publ., Ser. III, Biology, 2 (4): 149–189, 5 pls.

Hart, C. W., Jr. 1962. A revision of the ostracods of the family Entocytheridae. Proc. Acad. Nat. Sci., Philadelphia, 114 (3): 121–147, figs. 1–18.

Hoff, C. Clayton. 1943. Two new ostracods of the genus Entocythere and records of previously described species. J. Washington Acad. Sci., 33 (9): 276–286, figs. 1–2.

Rioja, E. 1940. Estudio carcinologicos. V. Morfologia de un ostracodo epizoario observado sobre *Cambarus* (*Cambarellus*) *montezumae* Sauss. de Mexico, *Entocythere heterodonta* n. sp. y descripcion de algunos de sus estados lavarios. An. Inst. Biol., Mexico, 11 (2): 593–609, figs. 1–6.

————. 1942. Descripcion de una especie y una subspecie nuevas del genero *Entocythere* Marshall, procedentes de la Cueva Chica (San Luis Potosi, Mexico). Ciencia, 3 (7): 201–204, 6 figs.

————. 1949. Estudios carcinologicos. XXI. Contribucion al conocimiento de las especies del genero *Entocythere* de Mexico. An. Inst. Biol., Mexico, 20 (1 and 2): 315–329, figs. 1–28.